

Application No. 09/987,412

The Office Action requests a drawing be furnished to facilitate understanding of the invention as required under 37 C.F.R. §1.81. Applicants submit that 4 pages of drawings showing Figs. 1-5 were filed on November 14, 2001 as evidenced by the date-stamped filing receipt attached hereto. Applicants also enclose courtesy copies of Figs. 1-5 as previously submitted.

Applicants request the amendment to Fig. 2 as provided in the attached Request for Approval of Drawing Corrections be approved. The amendments are not made in reply to the Office Action, but merely to identify the inner and outer grooves recited in the original claims. Support for the amendment to Fig. 2 can be found throughout the specification and at least at page 8, lines 10-16, as well as in the claims. Thus, no new matter is added.

The Office Action states that the incorporation of the essential material in the specification by reference to a foreign application or patent is improper. Applicants have deleted page 1, lines 3-6 to remove the identified reference.

The Office Action rejects claims 1-5 under 35 U.S.C. §102(b) as anticipated by U.S. Patent 5,508,577 to Shiga et al. (Shiga), and claims 6-8 under 35 U.S.C. §103(a) as unpatentable over Shiga. The rejections are respectfully traversed.

Shiga does not disclose or suggest a rotary electric machine comprising ... a cylindrical body circularly surrounding an outer periphery of a coil end portion that is a part of the straight portion of the upper layer coil, which protrudes axially outside of the axial end surface of the armature core and excludes the arm portion of the upper layer coil, the cylindrical body allowing outer grooves provided between adjacent two of the arm portions of the upper layer coils to open in a radially outward direction . . . , as recited in the claims.

Rather, Shiga discloses an electric rotary machine having a fixing member 570 press fit on a shaft 510 (col. 6, lines 57-61). The fixing member 570 press fits upper inner extension portions 538 of upper coils 531 onto the shaft 510. The fixing member, unlike the

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cylindrical body recited in the claims, does not allow outer grooves provided between adjacent two of the arm portions of the upper layer coils to open in a radially outward direction.

Further, the fixing member 570 does not surround an outer periphery of the coil end portion that is a part of the straight portion of the upper layer coil and excludes the arm portion of the upper layer coil. Rather, the fixing member 570 to which the Examiner refers is to press fit upper inner extension portions 538 of upper coils 531 on a shaft 510. The fixing member does not fix end portions of upper coil trunks 533, which corresponds to the straight portions of the invention. Thus, Shiga fails to disclose or suggest all of the features recited in the claims. Accordingly, Applicants respectfully request the rejection of claims 1-8 be withdrawn.

In view of the foregoing, reconsideration of the application is requested. It is submitted that the claims as presented herein patentably distinguish over the applied reference and fully meet the requirements of 35 U.S.C. §112. Accordingly, allowance of claims 1-11 is respectfully solicited.

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Should the Examiner believe anything further is desirable in order to place the application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

DRAFT

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Attachments:

Appendix
Courtesy copies of Figs. 1-5
Request for Approval of Drawing Corrections

Date: June 13, 2002

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DEPOSIT ACCOUNT USE
AUTHORIZATION
Please grant any extension
necessary for entry;
Charge any fee due to our
Deposit Account No. 15-0461

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APPENDIX

Changes to Specification:

Page 1, lines 3-6 are deleted.

Changes to Claims:

Claims 9-11 are added.

The following is a marked-up version of the amended claims:

1. (Amended) A rotary electric machine comprising:
 - an armature core having a predetermined number of slots;
 - an armature coil having a predetermined number of lower layer coils and upper layer coils installed in double layers in each of the slots against the armature core, the lower layer coils and the upper layer coils each having a straight portion and an arm portion bent generally perpendicularly from the straight portion;
 - an insulating plate interposed for insulation between the arm portion of the lower layer coil and the arm portion of the upper layer coil which are provided axially outside of an axial end surface of the armature core;
 - a cylindrical body circularly surrounding an outer periphery of a coil end portion ~~of the upper layer coil, the coil end portion locating that is a part of the straight~~ portion of the upper layer coil, which protrudes axially outside of the axial end surface of the armature core and excluding-excludes the arm portion of the upper layer coil, the cylindrical body allowing outer grooves provided between adjacent two of the arm portions of the upper layer coils to open in a radially outward direction; and
 - a resin insulator filled in an inner groove defined among adjacent coil end portions in a peripheral direction, the axial end surface of the armature core and the insulating plate.

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2. (Amended) The rotary electric machine as in claim 1, wherein the cylindrical body is fixed to the armature core on the outer periphery of the coil end portion with the resin insulator.